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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/585,709	05/31/2000	Clare Chu	50325-0107	3820

7590 04/15/2004

Hickman Palermo Truong & Becker LLP
1600 Willow Street
San Jose, CA 95125-5106

EXAMINER

NGUYEN, STEVEN H D

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 04/15/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/585,709

Applicant(s)

CHU ET AL.

Examiner

Steven HD Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-10, 17-20 and 23-25 is/are allowed.
- 6) ☒ Claim(s) 1, 11, 21, 22 and 26 is/are rejected.
- 7) ☒ Claim(s) 2-6 and 12-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 11, 21-22 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Oguchi (USP 6304912).

Oguchi discloses (Figs 1-46, col. 1, lines 9 to col. 70, lines 51) a method of determining a Layer 2 path (Fig 26, Ref DP1) between a source device (Fig 26, Ref H1) and a destination device (Fig 26, Ref H2) in a switched network (Fig 26) comprising steps of determining a Layer 3 path between the source device and the destination device, wherein the Layer 3 path comprises information identifying two or more Layer 3 devices (Fig 17, Ref SS1), determining a subpath for each contiguous pair of Layer 3 devices in the Layer 3 path (Fig 17, Ref SS2-4 used to determine a subpath between the adjacent layer 3 devices can be establish by layer 2 or not); and concatenating the subpaths to result in creating and storing information representing the Layer 2 path (Fig 17, Ref L2-reachable, if the L2 reachable, then storing the layer 3 address with layer 2 address in the routing table, See Figs 28-31 and 34-35).

Allowable Subject Matter

3. Claims 7-10, 17-20 and 23-25 are allowed.

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4. The following is a statement of reasons for the indication of allowable subject matter:

As claims 7, 17 and 23-25, the prior arts fails disclose or make obvious to a method or system comprising the steps of determining whether any contiguous pair of Layer 3 devices has no subpath, concluding that there is no Layer 2 path when any contiguous pair of Layer 3 devices has no subpath, eliminating extraneous devices in the subpaths; and concatenating the subpaths to result in creating and storing information representing the Layer 2 path when each of the contiguous pairs of Layer 3 devices has a subpath within a structure of the claims.

5. Claims 2-6 and 12-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As claims 2 and 12, the prior arts fails disclose or make obvious to a method or system comprising determining a subpath for each contiguous pair of Layer 3 devices comprises the steps of determining a first interface on a first node of the contiguous pair that is connected to a second interface on a second node of the contiguous pair for a given subnet, and selecting a relevant VLAN between the first and second nodes of the contiguous pair based on the first and second interfaces, and gathering current spanning tree information for the relevant VLAN.

As claims 4 and 14, the prior arts fails disclose or make obvious to a method or system comprising determining a subpath for each contiguous pair of Layer 3 devices further comprising the steps of tracing a first path segment from a first node of the contiguous pair by following a spanning tree associated with a relevant VLAN for the contiguous pair to a root of the spanning tree; tracing a second path segment from a second node of the contiguous pair by following the spanning tree associated with the relevant VLAN for the contiguous pair to the root of the

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spanning tree; and concatenating the first second path segments to result in creating and storing the subpath for the contiguous pair.

As claims 6 and 16, the prior arts fails disclose or make obvious to a method or system comprising concatenating the subpaths to result in creating and storing information representing the Layer 2 path includes the step of eliminating extraneous devices from the subpaths.

Response to Arguments

6. Applicant's arguments filed 2/10/04 have been fully considered but they are not persuasive.

In response to page 18-22, the applicant states that Oguchi does not disclose a step of determining a subpath for each contiguous pair of layer 3 devices in the layer 3 path and concatenating the subpaths to creating and storing information representing the layer 2 path. In reply, Oguchi clearly disclose a step of determining a subpath for each contiguous pair router devices such R1 and R2 and R2 and R3 by determining if they are reachable by layer 2 address or not and storing this information into routing table with a search key to be used for retrieving it from the routing table “read creating and storing the layer 2 path by link the subpaths between the layer 3 devices” for routing the packet via these networks (Figs 17-36, the information is created and stored for using to route the packet in layer 2 path by determining a subpath “layer 2 path of the contiguous devices in the layer 3 path” and link these path by search key); See col. 1, lines 52-67, col. 10, lines 32-43, col. 11, lines 37 to col. 12, lines 23 etc...

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (703) 308-8848. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on (703) 308-6602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Steven HD Nguyen', is written over the printed name.

Steven HD Nguyen
Primary Examiner
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4/9/04